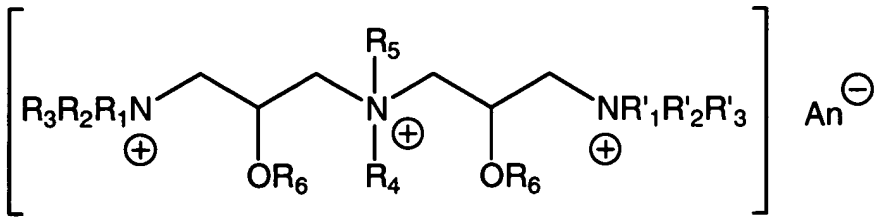
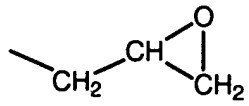
CLAIMS

WHAT IS CLAIMED IS:

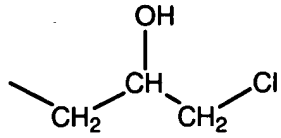
1. A compound of the formula



wherein each R_1, R'_1, R_2, R'_2, R_3, R'_3, R_4 or R_5 is independently selected from the group consisting of alkyl, aryl, aralkyl and $-CH_2-CH(OR_6)-CH_2N^+R_1R_2R_3$;
wherein one or more R_6 group is selected from the group consisting of:



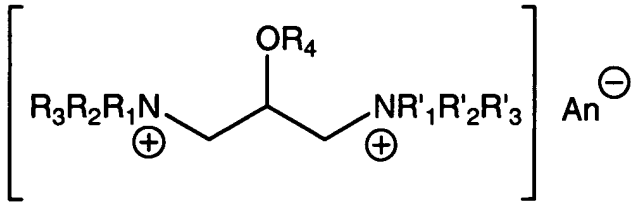
and



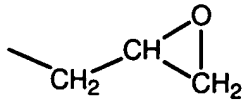
and wherein An^- is an anion.

2. The compound of claim 1, wherein one R_1 group and the R_4 group comprise a single alkyl group having one or more carbons, and wherein the alkyl group forms part of a cyclic structure that further comprises two positively charged nitrogen centers separated by a three-carbon fragment bearing an $-OR_6$ group.

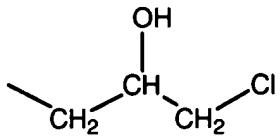
3. A compound of the formula



wherein each R_1, R'_1, R_2, R'_2, R_3 or R'_3 group is independently selected from the group consisting of alkyl, aryl, aralkyl and $-CH_2-CH(OR_4)-CH_2N^+R_1R_2R_3$;
wherein one or more R_4 group is selected from the group consisting of:



and



and wherein An^- is an anion.

4. The compound of claim 3, wherein the R_1 and R'_1 groups comprise a single alkyl group having one or more carbons, and wherein said alkyl group forms part of a cyclic structure that further comprises two positively charged nitrogen centers separated by a three-carbon fragment bearing an $-OR_4$ group.

5. The compound of claim 3 wherein the one or more R_4 groups is a 2,3-epoxypropyl group.

6. A modified carbohydrate formed by the reaction of:
   a. the compound of claims 1,2,3,4 or 5; and
   b. a carbohydrate having one or more hydroxyl groups.

7. The modified carbohydrate of claim 6 wherein the carbohydrate is a starch.

8. The method of making the compound of claim 1, 2, 3, 4, 5, 6 or 7.

9. The method of using the compound of claims 1, 2, 3, 4 or 5 to make a modified carbohydrate.

10. The method of using the modified carbohydrate of claim 6 as a waste water treatment agent.

11. The method of using the modified carbohydrate of claim 6 in a papermaking process.